



Max Schulze

June 9, 2015

Extreme unicycling

The unicycle that Los Alamos student intern Max Schulze and his brother had given their dad for Father's Day in 2005 did not get much use until Schulze tried it and got hooked. Today, he is a three-time unicycling world champion, with world wins in New Zealand in 2010, Italy in 2012 and Canada in 2014.

"My main competitive unicycling event is 'trials,'" Schulze explains, "which requires riders to navigate technically challenging obstacle courses."

Schulze's evolution from being a complete novice to competing in national and international events felt gradual and organic to him. But in retrospect it also happened surprisingly fast.

Time-

lapse image of Schulze unicycling off a concrete pillar.

"I just kept focusing on the next challenge and developed skills and confidence along the way," Schulze notes.

Schulze's first major unicycling competition was the Moab MUni Fest in 2006.

"I really thrive in competitive and demo environments, often performing better there than I do otherwise," Schulze says. "During the world championship in Italy, for example, with maybe 20 minutes left in the one-hour trials finals I knew that I was currently in first place. But even though I had completed more sections of the trials course than my competitors, I still wanted to try completing another one."

In the new section, Schulze had to ride up a narrow, inclined railing from a set of pallets and from that precarious position in mid-air jump onto a higher pallet tower. He was not sure that he could make it.

"I don't remember how many times I tried getting on top of the tower," Schulze laughs, "but what I do remember is that I was extremely determined and focused. With only about five minutes left in the competition, I finally jumped high enough to hop onto the pallet summit."

What you put in is what you get out

Schulze taught himself everything he knows about unicycling, and progressing at his own pace has given him a great sense of freedom.

“Because I did not have a coach telling me what to do,” Schulze explains, “I could practice whenever, wherever and however I wanted to. Nobody had any particular expectations, and this lack of external objectives allowed my self-motivation to flourish and grow naturally. Whatever I put into unicycling of my own volition, is exactly what I got out.”

On a bright, beautiful day in Los Alamos, what Schulze got out of unicycling was a broken wheel.

“I was working on a unicycling video that showcased jumping across wide gaps and drops using a large, 24-inch unicycling wheel,” Schulze says. “During one of the shots, I planned to start on the corner of a roof and land on top of a concrete retaining wall below. The distance was difficult to judge both horizontally and vertically, but it seemed doable as long as I could be fast.”

Schulze mounted his unicycle and did a couple of practice runs to help settle his nerves and get the line-up for his wheel right. With friends staffing multiple cameras, Schulze gave the sign that he was ready.

“I charged in towards the corner of the roof as fast as my legs could spin,” Schulze reports. “I couldn’t actually see the retaining wall until I was very close to the edge of the roof and had enough momentum to launch into space. In the split second before landing, I realized that the drop was bigger than I had judged.”

Schulze hit the top of the concrete wall and then the grass next to it while noticing three things all at once: The landing felt a bit soft, the impact was unusually loud and the unicycle’s wheel was not turning underneath him anymore.

“As I stood up and realized that my unicycle’s wheel was destroyed, I wasn’t terribly upset,” Schulze says. “At least it wasn’t my legs that had gotten smashed, and I had a pretty good ending for the video.”

Juggling two loves

But unicycling is not Schulze’s only passion. The son of two Los Alamos National Laboratory chemists, he graduated with a bachelor-of-science degree in chemistry from the Colorado School of Mines in the spring of 2014 and will begin pursuing a PhD in chemistry at Colorado State University this fall. Having worked at Los Alamos in his own right should help him reach his goal.

“I became a Lab intern the summer after I graduated high school,” Schulze says, “and then came back during all of my spring, summer and winter college breaks. My experience as a student researcher has been really enjoyable and helped me problem-solve in the research arena.”

Juggling his chemistry and unicycling passions may seem like a lot to handle, but Schulze finds both activities challenging and fun and complementary to one another.

“Chemistry gives me the intellectual focus I enjoy,” Schulze notes with a smile, “while unicycling allows me to turn off that part of my brain for a spell before I return physically tired and yet refreshed.”

Schulze works for the Explosive Science and Shock Physics Division's High Explosives Science and Technology group.

First, third and fourth unicycling photo courtesy of Minesh Bacrania. Second and fifth unicycling photo courtesy of Warren Howell.

Resources

Videos of Schulze's unicycling adventures:

- [Pallet tower - World championship in Italy](#) (2012, 36 seconds)
- [Colorado School of Mines](#) (2013, 6:08 minutes)
- [Los Alamos, including roof jump](#) (2014, 3:29 minutes)

Major unicycling events:

- [Unicycling Society of America](#) (North American championships)
- [Unicon](#) (World championships)

Disclaimer: The views and opinions expressed in the Employee Spotlight articles are solely those of the featured employees and do not necessarily reflect the official policy or position of Los Alamos National Laboratory.

Los Alamos National Laboratory

www.lanl.gov

(505) 667-7000

Los Alamos, NM

Operated by Los Alamos National Security, LLC for the Department of Energy's NNSA

